



Entire System Server

Version 3.2.2

Release Notes

This document applies to Entire System Server Version 3.2.2 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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Release Notes - Overview

Besides the Entire System Server Version 3.2.1 Release Notes, this page contains an overview of earlier Release Notes which are relevant for customers who want to migrate from an earlier Entire System Server version to Version 3.2.1.

- [Entire System Server Version 3.2.1 Release Notes](#)
- [Entire System Server Version 3.1.2 Release Notes](#)
- [Entire System Server Version 3.1.1 Release Notes](#)
- [Entire System Server Version 2.2.2 Release Notes](#)
- [Entire System Server Version 2.2.1 Release Notes](#)



Important Note: The Release Notes of Entire System Server Version 3.1.x and Version 2.2.x are provided for background information only!

Entire System Server 3.2.1 Release Notes

These Release Notes provide an overview about all changes for Entire System Server 3.2.1.

This document covers the following topics:

- Support of Previous Versions
 - Prerequisites
 - New Features
 - Changes / Enhancements
 - Solved SAGSIS Problems
 - Migration Checklists
 - Discontinued Support
 - Changes with the Next Version
-

Support of Previous Versions

With the release of Entire System Server 3.2.1, versions of Entire System Server lower than 3.1.1 can no longer be supported. You are therefore strongly advised to migrate to the current version at your earliest convenience.

Due to the restrictions of the Common JES Interface in Entire System Server Version 3.1 regarding JES3, Entire System Server Version 2.2.2 and its JES3 Interface will be supported for z/OS and OS/390 JES3 installations until December 31, 2003.

Prerequisites

Before you can install the Entire System Server, the following Software AG products must already be installed at your site:

- Natural Version 3.1.6 or above;
- Adabas Version 7.1.2 with zaps AI712015 and AI712047, Version 7.1.3 with zaps AI713016 and AD713023, or above;
- Entire System Server Interface (provided with Natural);
- Entire Net-Work Version 5.8.1 (optional, for multi-CPU Support);
- Natural ISPF Version 2.4.3 or above (optional)
- Predict Version 4.2.1 or above (optional).

The Entire System Server Services are available in any Natural environment that runs any of or a combination of the following operating systems:

- OS/390 Version 2.9 or above; or z/OS Version 1.1 or above
- VSE/ESA Version 2.5 or above;
- BS2000/OSD Version 2 or above.

Notes:

- OS/390 or z/OS: the relevant PTF for APAR OW56783 must be applied.
- OS/390 or z/OS, JES2: the PTFs for APARs OW44349, OW52411, OW55671, OW55856, OW57486, OA03125 and OA03546 must be applied.
- OS/390 or z/OS, JES3: the PTFs for APARs OW34753, OW36022, OW49881, OW50990, OW56608, OW57110, OA01553, OA01715, OA02735, OA03934 and OA04380 must be applied. See also Information APAR II11784 for recommended JES3 SAPI maintenance.

- BS2000/OSD: since Entire System Server on BS2000/OSD uses operating system interfaces introduced with BS2000/OSD Version 2, it cannot run on earlier operating system versions.

Software AG provides Entire System Server support for the operating system versions supported by their respective manufacturers. Generally, when an operating system provider stops supporting a version of an operating system, Software AG will stop supporting that operating system version.

Although it may be technically possible to run a new version of Entire System Server on an old operating system, Software AG cannot continue to support operating system versions that are no longer supported by the system's provider.

New Features

This section describes new Entire System Server Features. It covers the following topics:

- Common New Features
- New Features for z/OS and OS/390
- New Features for VSE/ESA
- New Features for BS2000/OSD

Common New Features

- Support of 2-byte DBIDs
- E-mail support
- New, changed and deleted fields

Support of 2-byte DBIDs

Entire System Server Version 3.2.1 supports 2-byte node numbers (DBIDs), thus extending the possible range from 255 up to 65,535. To facilitate this innovation, the following field definitions have been changed from N3 to N5:

- NODE field of all view DDMs
- FROM-NODE and TO-NODE fields in view COPY-FILE
- FROM-NODE field in view SUBMIT

Natural programs will not need to be re-stowed if the Entire System Server node is less than 256, however they will need to be re-stowed (and possibly modified) to access node numbers greater than 255.

The Entire System Server Default DBID specified in the Natural NTDB PROCESS macro statement and used in the view DDMs must still be in the range between 1 and 254.

NAT mainframe version 3.1.6 or Windows and UNIX version 5.1.1 is required to take advantage of an Entire System Server node with a 2-byte DBID. However, not all Software AG products using Entire System Server currently support node numbers greater than 255.

E-mail support

The new Entire System Server version provides support for sending e-mail. A new view processor and the new SEND-EMAIL DDM are provided. For details of using the new DDM, refer to the Entire System Server User's Guide. All administrative requirements for enabling e-mail support are described in Entire System Server Administration Documentation.

Under VSE/ESA, e-mail support has been tested with Connectivity Systems, Inc's and IBM's TCP/IP stack products.

**Warning:**

Under VSE/ESA, if you have an ADA71x (713 or earlier) library in the LIBDEF PHASE statement for Entire System Server, there is an error in the library that must be corrected. An invalid CEEBXITA (both .OBJ and .PHASE) module was accidentally included as part of the distribution. Although this does not affect ADABAS operation, it does cause an addressing exception when using the e-mail support. You must delete these modules from the library. For more information, contact Software AG support.

New, changed and deleted fields

Apart from the NODE fields, the fields listed in the table below have been added, changed or deleted. See the associated view descriptions in the User's Guide for details regarding the affected fields.

In addition, JOB-ID and JOB-NUMBER fields have been changed to support 7-digit job numbers in z/OS. See the section New Features for z/OS and OS/390 for a description of these changes.

View	Field	Change
ACTIVE-JOBS	JES-INIT-ID	A2 -> A4
	QUIESCE	New, A3
	RESOURCE-GROUP	New, A8
	SERVER	New, A3
	SERVICE-CLASS	New, A8
	SERVICE-CLASS-PERIOD	New, N3
	WORKLOAD	New, A8
CATALOG-UPDATE	ALIAS	Deleted
	CVOL	Deleted
	DELETE	Deleted
	EMPTY	Deleted
	INDEX	Deleted
	NUMBER-OF-GENERATIONS	Deleted
COPY-FILE	ALIAS	Deleted
	ERROR-NODE	New, N5
	ERROR-VIEW	New, N3
JOB-VARIABLES	DATA-APPENDIX	New, A3
LIB-DIRECTORY	LONG-ALIAS	New, A3
	MEMBER-TTR	B4 -> B3
	MODULE-ATTRIBUTES	A80 -> A253
	MEMBER-LONG-NAME	New, A253 (see also LONG-ALIAS above)

LOAD-MODULE	MODULE-LENGTH	N7.0->N11.0
	MODULE-ATTRIBUTES	A80->A253
	BLOCK-TTR	Obsolete (see below)
	ESD-NAME-LONG	New, A253
	IN-CSECT-LONG	New, A253
	IDR-CALLERID	New, A80
NATPROC-USERS	NATPROC-ID	A4 -> A10
SPOOL-FILES	NEW-FORM	New, A8
	NEW-WRITER	New, A8
	OUTDISP	New, A6
SPOOL-QUEUE	RECORD-COUNT	N7 -> N9
	REAL-RECORD-COUNT	N7 -> N9
SPOOL-UPDATE	JES3-CLASS	New, A1
	JES3-QUEUE	New, A4
SYSTEM-INFO	PRODUCT-NAME	New, A8
	PRODUCT-VERSION	New, A8
	STARTUP-PARM	Now a descriptor
WRITE-FILE	OPTIONS	Renamed to PRODUCT-OPTIONS
	EXPIRATION-DATE/X	Valid for BS2000/OSD only
WRITE-SPOOL	DESTINATION	A50 -> A127
	FSSDATA	A8 -> A127
	PORTNO	A17 -> N5
	PRTOPTNS	A17 -> A16

New Features for z/OS and OS/390

- Support for 7-digit job numbers
- Replacement of ADALNA5
- CONSOLE FUNCTION='DIS-WTOR': Display pending operator replies
- COPY-FILE PDSE: Program object copy between nodes
- LIB-DIRECTORY: Support of long alias names for PDSEs
- LIB-DIRECTORY: Removal of undocumented behavior
- LOAD-MODULE changes
- New operator command EVENTS

Support for 7-digit job numbers

In z/OS release 1.2, the format of the JES JOBID has changed to support job numbers greater than 99,999. For details, see "z/OS V1R2 JES2 Migration, Chapter 3.1.3: Support for a Maximum of 999,999 Job Numbers", and "z/OS V1R2 JES3 Migration, Chapter 3.1.4: Support for 999,999 job numbers" in IBM's z/OS Library.

To support these higher job numbers, JOB-ID fields have been changed from A5 to A8, and JOB-NUMBER fields have been changed from N5 to N7 (see table of affected views below). Even DDMs and fields not related to OS/390 and z/OS containing JOB-NUMBER or JOB-ID have been modified to consistently support the new formats.

View	Field	Change
ACTIVE-JOBS	JOB-ID	A5 -> A8
	JOB-NUMBER	N5 -> N7
CONSOLE	JOB-ID	A5 -> A8
CONSOLE-LOG	LOG-JOB-NUMBER	N5 -> N7
NATPROC-USERS	JOB-ID ¹	A5 -> A8
READ-SPOOL	JOB-ID	A5 -> A8
	JOB-NUMBER	N5 -> N7
SPOOL-FILES	JOB-ID ¹	A5 -> A8
	JOB-NUMBER	N5 -> N7
	ORIGINATOR-JOB-ID ¹	A5 -> A8
SPOOL-QUEUE	JOB-ID	A5 -> A8
	JOB-NUMBER	N5 -> N7
	ORIGINATOR-JOB-ID ¹	A5 -> A8
SPOOL-UPDATE	JOB-ID	A5 -> A8
	JOB-NUMBER	N5 -> N7
SUBMIT	JOB-ID	A5 -> A8
	JOB-NUMBER	N5 -> N7
TASK-INFO	JOB-ID ¹	A5 -> A8
	JOB-NUMBER ¹	N5 -> N7
	ORIGINATOR-JOB-ID ¹	A5 -> A8
WRITE-SPOOL	JOB-ID	A5 -> A8
	JOB-NUMBER	N5 -> N7

¹ These fields have been changed for the reason of consistency and are not related to z/OS and OS/390.

With previous releases of Entire System Server, the JOB-ID field used to contain the five rightmost bytes of the eight-byte JES JOBID (representing the job number in character format). As of Entire System Server 3.2.1 the JOB-ID field contains the complete JES JOBID (three letters followed by five digits or one letter followed by seven digits).

To achieve the best possible compatibility for five-digit job numbers with previous releases of Entire System Server, the JOB-ID fields for z/OS and OS/390 are handled right-justified. In this way, a five-byte JOB-ID field from a back-level DDM will continue to receive the five rightmost bytes of the JES JOBID.

Only the numeric part of the JOB-ID field will be used for selection purposes. This ensures that a FIND statement with JOB-ID = '23456' will not return a JOB-ID of 'J0123456'. On the other hand, a started task with a JOB-ID value of 'S0123456' will be selected for a FIND statement with JOB-ID = 'J0123456' specified.

Replacement of ADALNA5

Entire System Server no longer requires use of the special ADABAS link module ADALNA5. Entire System Server now uses the standard reentrant ADABAS link module ADALNKR.

CONSOLE FUNCTION='DIS-WTOR': Display pending operator replies

To obtain pending operator reply messages (WTORs) that have been issued before the start of Entire System Server, the operator command 'D R,R,T,SYS=sysid' is issued during initialization.

COPY-FILE PDSE: Program object copy between modes

COPY-FILE now supports copying of PDSE program objects between nodes. Mixed PDS/PDSE copies are still prohibited due to IBM restrictions; an intermediate IEBCOPY of the member to the proper format data set is required.

LIB-DIRECTORY: Support of long alias names for PDSEs

Upon request, LIB-DIRECTORY now returns the first 253 bytes of a long alias name in a PDSE.

LIB-DIRECTORY: Removal of undocumented behavior

There was an undocumented feature under OS/390 and z/OS where the LIB-DIRECTORY field MEMBER-TYPE would contain the value "ALIAS" if the member was an alias. This conflicts with internal COPY-FILE view processing, and also has never been documented; therefore this feature has been removed from Entire System Server with this release. The ALIAS field continues to contain "YES" if the member is an alias - this functionality remains unchanged.

LOAD-MODULE Changes

- Removal of support for field BLOCK-TTR
- Changes in \$PRIVATE entries
- Differences in order/content of output
- SEGMENT-LENGTH behavior

Removal of support for field BLOCK-TTR

Due to improvements in the internal processing in the LOAD-MODULE view, it has become necessary to remove support for the BLOCK-TTR field. This field will contain binary zeros with this release, and it will be removed in the next release.

Changes in \$PRIVATE entries

Also due to these improvements, ESD entries formerly identified as \$PRIVATE will now be identified as \$Pxxxxxx, where xxxxxx is a hexadecimal representation of a binder-internally-generated identifier. (These will be equivalent to "\$PRIVxxxxxx" entries in corresponding AMBLIST output.)

Differences in order/content of output

In addition, IDR records may appear in a slightly different order, and multiple records may be merged into a single record. There may also be slight differences in the return order of ESD entries.

TEXT entries are unchanged.

SEGMENT-LENGTH behavior

For further information, see new additional documentation regarding the value of SEGMENT-LENGTH and large occurrences of the BIND-specified FILL character in the User's Guide.

New operator command EVENTS

A new operator command, EVENTS, has been provided to allow diagnosis of problems with EVENTING tasks.

New Features for VSE/ESA

- Use of 31-bit storage
- Support of VSE/ESA POWER CRE queue
- Support of VSE/ESA POWER multiple browsing of spool files
- Support of XEQ-START/STOP fields in SPOOL-QUEUE
- IDCAMS view now available for VSE/ESA
- Retrieval of contents from VSAM catalogs
- Use of dataspace in a CA-Dynam/D environment
- Enhancements to label processing
- CONSOLE-LOG field PARTITION now a descriptor
- Support of various LOG-xxx fields in CONSOLE-LOG, deprecation of undocumented fields DATX and TIMX
- New operator command EVENTS
- LIB-DIRECTORY enhancements

Use of 31-bit storage

Internal improvements have increased the amount of 31-bit storage used by Entire System Server. We now recommend running NPR in a partition or class with a size greater than 16M. In addition, see the section below regarding dataspace usage in a CA-Dynam/D environment.

Support of VSE/ESA POWER CRE queue

Entire System Server fully supports browsing of POWER spool files in the CRE queue by SPOOL-FILES and READ-SPOOL. A new SPOOL-FILES STATUS value, 'CRE', has been added.

Support of VSE/ESA POWER multiple browsing of spool files

Entire System Server fully supports multiple browsing of POWER spool files without changes to existing NATURAL programs.

Support of XEQ-START/STOP fields in SPOOL-QUEUE

The various fields referencing execution start and stop times are now valid for VSE/ESA. They reflect information about the POWER queue entry rather than the job.

IDCAMS view now available for VSE/ESA

The VSAM utility IDCAMS is now available to NATURAL programs by way of the IDCAMS view.

Retrieval of contents from VSAM catalogs

The CATALOG view now supports retrieval of information from the VSAM master catalog and VSAM user catalogs.

Use of dataspaces in a CA-Dynam/D environment

To reduce VTOC resource conflicts, the VTOC view processor now utilizes dataspaces when Entire System Server runs in an environment where CA-Dynam/D is active. For more details, see Step 13: Dataspace Requirements in the Installation for VSE/ESA section of the Installation and Customization Documentation.

Enhancements to label processing

Improvements have been made in the internal label processing table management that should improve performance when accessing files.

CONSOLE-LOG field PARTITION now a descriptor

The field PARTITION is now a descriptor, which allows it to be used in the WITH clause of the FIND statement.

Support of various LOG-xxx fields in CONSOLE-LOG, deprecation of undocumented fields DATX and TIMX

Several of the LOG-xxx fields that were formerly documented as being OS/390-only have now been added to the VSE/ESA support. This includes LOG-TIMX and LOG-DATX, which replace the undocumented fields DATX and TIMX. The CONSOLE-LOG DDM has been updated so that the fields DATX and TIMX now point to the same short DB names as their LOG-xxx counterparts. These two fields are scheduled to be deleted in a future release of Entire System Server.

Important:

If you have a program that uses either DATX or TIMX, you must recatalog the programs due to the DDM changes before using NPR321, and you should also change the programs to use the LOG-DATX and LOG-TIMX fields.

New operator command EVENTS

A new operator command, EVENTS, has been provided to allow diagnosis of problems with EVENTING tasks.

LIB-DIRECTORY enhancements

The fields BLOCK-COUNT and DATE/DATX/TIME-CREATED are now supported if LIST-SUBLIBS = 'YES'.

New Features for BS2000/OS

All executable components of Entire System Server in BS2000/OSD are built as LLM objects (LMS type L). This reduces the load time significantly.

The new operator command FILES is supported to display all open files per server task (ESYSERV). For further information see FILES in the Operator Commands section of the Administration Documentation.

Changes / Enhancements

The following C/E's have been implemented:

- CE 4049: More NEW fields in SPOOL-FILES
- CE 9965: Provide ALIAS creation for PDSE load modules

Solved SAGSIS Problems

This section describes solved SAGSIS problems for Entire System Server. SAGSIS is the internal Software AG Support Information System, where we track problem issues.

It covers the following topics:

- Solved SAGSIS Problems on OS/390
- Other Problems Solved on z/OS
- Solved SAGSIS Problems on VSE/ESA
- Solved SAGSIS Problems on BS2000/OSD

Solved SAGSIS Problems on OS/390

Problem	Short Description
177840	re-reading temp files
191009	Output datasets of running jobs
217384	S0C4 REFRESH JES Command
217416	ESY5787 CSI ... Reason 8, RC 64
217791	View CONSOLE field JOB-TYPE
218067	Spool Files with OUTDISP=PURGE
218125	S0C4 in NATPVTTPR offset 49E
218315	ASMA034E OPRVRACF assembly error
218544	ESY5551 copying PDSE member
218758	Operator enters ADAEND dump A03
218779	ADAEND is not possible
218858	Abend S30A-18 in XCOMV200+X'5CA'
219499	esy5803 with allocations
219723	Spool ds not found for held job
219851	Device-names: address not found
220020	NATPROC-LOGON without USER-ID
220224	ICH409I 582-000 ABEND RACHECK
220419	S0C7 in XCOMV044 at x'2A30'
220421	JES2 spool utilization incorrect
220715	copy-file write-file VB PDS fails
220895	ESY5900 Cannot allocate SYSOUT
220902	ESY5722 error using READ-SPOOL
221058	Reading multi-volume datasets
221245	S0C1 in XCOMV003 +95C
221609	TIME-XEQ-START value wrong

221949	S80A reason 10
221957	READ-SPOOL TYPE=AL does not work
222191	read-file, multi-volume, volser
222336	ESY5902 reading dataset/member
222689	SPOOL-Q:CLASS not filled f.input
222848	FILE ATTRIBUTES for migrated ds
222887	record-number and read-spool view
223022	Hang using REMOTE callers
223128	Recall should show volser
223454	Zero AREA is filled with blanks
223642	ABEND 5777 READ-FILE
223691	S0C4 in NATPREP+0x382
223774	Support for JES2 z/OS 1.4
223831	FIND SPOOL-QUEUE WITH 'OR' INCORR
224040	Print with NPR-Exit NATWSP23
224300	SPOOL RELEASE with CLASS
225152	Npr311 Abends S0c4 with ADAM99.
225524	line limit reached
225894	SPOOL-FILES CPU consumption
226469	ESY5904 SCLM protection
226869	User can't release his own job
227280	S0c4 at start natprep + x'1e6'
227584	IEA705I GETMAIN 878-10
227600	RACF error browsing own job
227979	S0C1 in XCOMJESC W. SPOOL-QUEUE
228423	ESY5833 trying to change class
228483	NAT3254 with NAT subtasks
229336	Perform. degradation at PO SCAN
229991	ABEND SA0A RC=0010
230147	S0C1 at address X'00000052'
230524	S0C4 in LIBRVS of LIBRARIAN
231067	Find catalog GDG doesn't work
231348	Copy of PDS datasets fails
231527	SPOOL-FILES AND DATA-SET-KEY
232553	ADAEND doesn't work
233602	CONSOLE: TIMX - wrong year 19xx

234049	Read VSAM always No Records.
234299	ESY5899 on READ-FILE multi VOLUME
234596	ABEND CODE 8423E000
235014	Real size of trace storage ?
236854	ABEND S0C7 in XCOMV002
236905	ESY5777 during a 3GL-PAC-Migration

Other Problems Solved on z/OS

The restrictions for OS/390 JES3 installations as described in the Entire System Server Version 3.1.1 Release Notes no longer apply. The Common JES Interface now returns spool information from JES3 in the same way as from JES2, which is slightly different from the way spool information was returned from the JES3 interface of NPR22. To ease migration in a JES3 environment, the spool-related view processors will support either a 'compatibility mode' or a 'consistency mode'. The mode is determined from the value specified for the SPOOL startup parameter. SPOOL=JES3 sets the 'compatibility mode'; the 'consistency mode' can be requested with SPOOL=JESC. For details, see z/OS and OS/390 JES3 Considerations in the section OS/390 Considerations of the Administration Documentation. We plan to remove support for the 'compatibility mode' in a future release.

Solved SAGSIS Problems on VSE/ESA

Problem	Short Description
200121	ESY5996 DYNAMPOOL=poolname
213413	LIB-DIRECTORY ends prematurely
215309	Various abends with CA-Dynam/D
218604	ESY5551 copying PDSE member
220460	ESY5996 browse VSE-members
221018	Browse VSE File under DYNAM fails
221080	BROWSE SAM ESDS VSAM files
221752	Reduce size of POWER ERROR-TEXT
224060	ADAM98 error (no common memory)
226468	ESY5904 SCLM protection
228483	NAT3254 with NAT subtasks
229656	Support POWER 6.7
231461	Possible FREEVIS errors
231701	Cancel code 25 if MSGLEVEL=2
232716	CONSOLE: TIMX - wrong year 19xx
232720	CONSOLE-LOG wrong LOG-TIMX
234446	ESY5701 in READ-FILE execution
235417	Real size of trace storage ?

Solved SAGSIS Problems on BS2000/OSD

Problem	Short Description
227660	Communication lost
227736	NPR31x does not start with ADA731

Migration Checklists

- z/OS and OS/390
- VSE/ESA
- BS2000/OSD

z/OS and OS/390

- Startup Parameters
- JCL Procedure
- RACF Definitions

Startup Parameters:

- Remove retired parameters MIGRAID and SYSLOG-REFRESH, if still specified.
- If you intend to use the new e-mail feature:
 - add SMTP-HOST, TCP-STACK and, optionally SMTP-PORT parameters. For further information, see Run E-Mail Client in the section Common Entire System Server Features of the Administration Documentation.
- If you are using JES3 and you want to exploit the 'consistency mode':
 - change your SPOOL parameter value from 'JES3' to 'JESC'. For further information, see z/OS and OS/390 JES3 Considerations in the section OS/390 Considerations of the Administration Documentation.
- Check for IUBL= settings and remove it. The default value is now 32767, and a smaller value may cause problems with the remote PDSE copy function of COPY-FILE

JCL Procedure:

- If you intend to use the new e-mail feature:
 - you may have to add a SYSTCPD DD statement to your JCL procedure. For further information, see Run E-Mail Client in the section Common Entire System Server Features of the Administration Documentation.
- If you are using JES3, and you are migrating from NPR222:
 - remove the UQJ3JOBS DD statement for the DSP data set.
- When the DSP data set is no longer needed by any back-level Entire System Server or Complete address space, you should:
 - cancel the UQJ3 DSP in JES3;
 - RESTORE and REJECT the USERMOD to add the DSP directory entry to IATGRPT;
 - delete the DSP load module IATUQJ3 from your load library;
 - remove the allocation for the DSP data set from your JES3 JCL procedure or initialization statement deck, and
 - delete the DSP data set.

For further information, see z/OS and OS/390 JES3 Considerations in the section OS/390 Considerations of the Administration Documentation.

RACF Definitions:

- Add READ authority for the MVS.DISPLAY.R profile in the OPERCMDS resource class to your Entire System Server's MCS console, if not already defined.
- If you intend to use the new e-mail feature:
 - define the Entire System Server Started Task and all users requesting SEND-EMAIL as UNIX System Services users (define an OMVS segment in RACF). For further information, see Run E-Mail Client in the section Common Entire System Server Features of the Administration Documentation.

VSE/ESA

- Startup Parameters
- Partition/Class Size
- Dataspaces
- CONSOLE-LOG

Startup Parameters

- If you intend to use the new e-mail feature, add SMTP-HOST, TCP-STACK and, optionally SMTP-PORT parameters. For further information, see Run E-Mail Client in the section Common Entire System Server Features of the Administration Documentation. See also Warning regarding CEEBXITA in older ADABAS libraries.

Partition/Class Size

- Due to changes in internal processing, we recommend increasing the size of the partition or class to a value greater than 16M.

Dataspaces

- If you are using CA-Dynam/D, see Step 13: Dataspace Requirements in the Installation for VSE/ESA section of the Installation and Customization Documentation.

CONSOLE-LOG

- Check programs for use of deprecated fields DATX and LOGX.

BS2000/OSD

- Startup Parameters

Startup Parameters

- If you intend to use the new e-mail feature, add SMTP-HOST, TCP-STACK and, optionally SMTP-PORT parameters. For further information, see Run E-Mail Client in the section Common Entire System Server Features of the Administration Documentation.

Discontinued Support

As announced in the Entire System Server 3.1.2 Release Notes:

- support for files 100 and 202 (sequential file support using a DDM to describe the data) has been removed;
- fields and functions related to CVOLs have been removed from the DDM for CATALOG-UPDATE. IBM has dropped support for CVOLs as of January 1st, 2000.

Changes with the Next Version

The field BLOCK-TTR (obsolete as of this release) will be removed from the view LOAD-MODULE.

We plan to implement support for multi-level security in a future version of Entire System Server. This may require changes to customized versions of the current security exits. If you are using non-standard resource classes in your security exits, please communicate your requirements to Software AG Customer Support.

Entire System Server 3.1.2 Release Notes

For further information, you should also read the Entire System Server 3.1.1 Release Notes which are delivered with Version 3.1.2 on the current Natural Documentation CD-ROM and in printed form.

References contained in the Version 3.1.1 Release Notes generally refer to the corresponding Version 3.1.1 manuals which are included in the Version 3.1.2 documentation.

These Release Notes provide an overview of solved problems provided for Entire System Server 3.1.2.

This document covers the following topics:

- Support of Previous Versions
 - Prerequisites
 - Solved SAGSIS Problems on z/OS and OS/390
 - Solved SAGSIS Problems on VSE/ESA
 - Solved SAGSIS Problems on BS2000/OSD
 - Changes with the Next Version
-

Support of Previous Versions

Note that with the release of Entire System Server 3.1.2, versions of Entire System Server lower than 2.2.2 can no longer be supported. You are therefore strongly advised to migrate to the current version at your earliest convenience.

The restrictions for OS/390 JES3 installations described in the Entire System Server Version 3.1.1 release notes also apply to this maintenance level. If your applications need the missing functionality for the JES3 interface or you are using Entire Output Management (NOM), you must not install Entire System Server Version 3.1.2. Instead, you have to use Entire System Server Version 2.2.2, until the missing functionality of the JES3 interface is implemented in the next release of Entire System Server.

Prerequisites

Before you can install the Entire System Server, the following Software AG products must already be installed at your site:

- Natural Version 3.1.4 or above;
- Adabas Version 7.1.2 or above;
- Entire System Server Interface (provided with Natural);
- Entire Net-Work Version 5.6.1 (optional, for multi-CPU Support);
- Predict Version 4.1.2 or above (optional).

The Entire System Server Services are available in any Natural environment that runs any or a combination of the following operating systems:

- OS/390 Version 2.6 or above; or z/OS Version 1.1 or above
- VSE/ESA Version 2.4 or above;
- BS2000/OSD Version 2 or above.

For OS/390, JES2 the PTF's for APAR's OW35104, OW36019, OW44349 and OW52411 must be applied.

For OS/390, JES3 the PTF's for APAR's OW34753, OW36019, OW36022 and OW44298 must be applied. See also Information APAR III11784 for recommended JES3 SAPI maintenance.

Since Entire System Server on BS2000/OSD is using operating system interfaces introduced with BS2000/OSD Version 2, it cannot run on former operating system versions.

Software AG provides Entire System Server support for the operating system versions supported by their respective manufacturers. Generally, when an operating system provider stops supporting a version of an operating system, Software AG will stop supporting that operating system version.

Although it may be technically possible to run a new version of Entire System Server on an old operating system, Software AG cannot continue to support operating system versions that are no longer supported by the system's provider.

If Natural ISPF is used, Version 2.4.3 or above is required to support the new Entire System Server version.

If Natural ISPF Version 2.4.2 is used, the solutions for the following problems have to be installed:

z/OS and OS/390:

Problem	Solution	Description
195165	IS24204	Error NAT1305 in ISPJLS1P / 5580 Numeric value truncated

BS2000/OSD:

Problem	Solution	Description
202180	IS24205	Browse / Find in LMS elements slow.

Solved SAGSIS Problems on z/OS and OS/390

Problem	Short Description
168615	NAT0954 on IF ERROR-CODE
190497	RLSE not releasing unused space
190840	Lib-update doesn't scratch
200106	Rename dataset ACF2 message
201694	Fields not filled, DIS-WTOR
204122	No user-id from NATPROC-USERS
204214	Lib-update: alias not correct
204241	Submit: error ES8? close handling
204415	ESY5580 with PDSE dataset
204453	View unit-attrib./diff. results
204562	Abend S0C4 with LOAD-MODULE IDR
204564	Abend S0C7 in XCOMV044+X'2A04'
204691	LOAD-MODULE DATX field incorrect
204789	IDR-TYPE LINK not found for PDS

Problem	Short Description
205162	UNIT-HEX conflicts with UNIT
205168	List active job with NSPF
205443	S0C1/TRACE error msgs at init
205507	ESY0580I SSI req. 80 STATREAS 2
205588	Subtask already active
205745	Read / copy load-module
205747	ACTIVE-JOBS with JOB-NAME=blank
205749	Spool-queue groupid 8 chars
206029	Operator cmd not working
206097	Opcmd TRACE=Y & TRACE=PREP error
206126	Copy-file to PDSE replace ignor
206334	Find by group-id
206372	Submit does not set JOB-ID
206385	ICH409I 0C4-010 ABEND at logoff
206452	Spool-queue: card-count not set
206624	Scan case sensitive
206627	S213-8C with HFS
206693	Scan-length with scan-type=A
206808	CC for cond.code doesn't work
206812	S001, IEC020I 001-03
206813	S0C4 in XCOMV012 at X'0AC4'
206927	ESY5580 instead of ESY5998
206928	IDR-TYPE=ZAP on PDSE data set
206981	Overview of applied zaps
206982	Invalid JES2 Cmd \$TSTC(nnn),C=c
207197	Recall not migrated data set
207224	Displaced data if unknown MU fld
207307	Lib-directory on load lib TTR
207404	LIB-ZAP to PDSE returns AMA129I
207618	S0C4 in READCONS at X'0A1C'
207760	TYPE SM sysout data set not found
207776	Duplicate spool data sets found
207864	Wrong dataset allocated for ALIAS
208404	WRITE-FILE REPLACE PDSE ignored
208939	READ-FILE receives ESY5996

Problem	Short Description
209011	S0C4 when data set PASSWORD spec.
209065	SPOOL-FILES with HOLD=YES, update
209528	Hang in xcomvtop
209604	Support for JES2 z/OS 1.2
209623	COPY-FILE for ALIAS incorrect
209821	SYNCDB does not support DBID>999
209921	Abend S0C4 in XCOMALCF +X'176'
210219	NAT RC cmds w/CIDs missing view
210395	ESY5785 CVAFTST failed with RC
210620	FIND CONSOLE-LOG log-job-name
210630	Allocation not released for PDS
210657	Sporadical esy5631
210854	Console-log: scan not used proper
210872	S0C4 esynmain+x3F1A
210959	ESY0001I NO OUTADD CALLED
211028	Correct GMT/local time adjustment
211085	SPOOL-FILES release new-class
211093	SPOOL-FILES invalid NEW-CLASS
211114	FILE-ATTRIBUTES of uncatlg PDSE
211537	Wrong PDSE IDR data
211588	Free space not shown correctly
211614	Copy PDS member to uncat. Dataset
211682	Wrong MODULE-LENGTH returned
211867	Duplicate SPOOL-QUEUE entries
212046	ESY0563I \$CBIO failed, RC 12
212050	SPOOL-QUEUE finds wrong CLASSes
212117	Abend S0C1 in TRACE at X'05E6'
212186	ABEND S130
212405	VTOC-update doesn't check catalog
212444	VTOC shows incorrect EXTENT-TYP
212464	VTOC extent not listed
212488	NAT5719 Unable to..SYSOUT dataset
212550	TRACE defaults incorrect
212880	Copy-file module to pdse
212906	ESY5602 in CATALOG-UPDATE

Problem	Short Description
213173	Correct TRACE console msg IDs
213287	ABEND S378-1C in XCOMV012
213376	No error code for view SPOOL-FILE
213800	ZAPs near module end not reported
214011	Scan doesn't find all members
214488	Default for IUBL
214666	Allocations: strange values
214792	ESY5892 at shutdown ESM product
214966	Display offset of CSECT wrong
215068	LOG-REQUEST-TYPE missing
215140	TRACE opr cmd seems not to work
215214	Active-jobs: not all found
215370	S80A reason 10
215468	S0C1 in XCOMV003 at X'095E'
215525	device-names: not all found
216393	SPOOL-QUEUE: JOB-NAME empty
217611	S0C4 in XCOMV004 at X'11EE'

Other Problems Solved on z/OS

Description

Entire System Server 3.1.2 provides an updated version of the Common JES Interface that includes support for the new z/OS 1.2 JES2 checkpoint format, allowing for job numbers greater than 65535. However, as the spool related view processors only support 5-digit job numbers, there is still a limit of 99,999. To comply with this restriction, an appropriate JOBDEF RANGE limit can be specified in the JES2 Initialization Statements.

NPR31 will recognize dynamic changes of JES parameters, therefore the operator Command REFRESH JES is not longer supported.

Solved SAGSIS Problems on VSE/ESA

[illegible]

Solved SAGSIS Problems on BS2000/OSD

Problem	Short Description
204851	How to pass on account numbers
206328	Wrong time stamps in TRACE data
206563	Zero RECORD with READ-FILE is blank
206733	Keep TSN in inactive SERVER TYPIO
206747	Support zero AREA in MAIN-STORAGE
209833	NPR corrupts/truncates jobs
210304	FILE-ATTRIBUTES internal error
210486	NATPROC-USERS incomplete data
210689	HELP-INFO corrupted data
210706	SYSTEM-INFO wrong SESSION-NUMBER
210734	Zero DATA in COMMON-DATA is blank
210767	Zero MESSAGE in EVENTING is blank
211203	Displaced data if unknown MU field
212941	Number of USER CB's exceeded
216734	Binary data returned left justified

Changes with the Next Version

With the next version of Entire System Server, the following changes will be implemented:

1. The JOB-ID and JOB-NUMBER fields in the spool related view processors will be expanded to provide support for seven-digit job numbers.
2. The LOAD-MODULE view processor will use the Binder API to obtain information on load modules in both PDS and PDSE libraries, resulting in a consistent format of data fields like IDR-DATA.
3. Fields and functions related to CVOLs will be removed from the DDM for CATALOG-UPDATE. CVOLs are no longer supported as of January 1st, 2000.
4. The OPTIONS field for view WRITE-FILE will be renamed to PRODUCT-OPTIONS to avoid a potential conflict with the Natural reserved word used with the Optimizer Compiler.
5. XEND and ADAEND Commands
It has come to our attention that the undocumented XEND command is being used by some customers to shut down an Entire System Server region. ADAEND is the only documented and supported command to be used to normally shut down a region. XEND will disappear in a future release of Entire System Server.
6. User views SEQUENTIAL-FILE-READ and SEQUENTIAL-FILE-WRITE
Support of user views SEQUENTIAL-FILE-READ (file number 100) and SEQUENTIAL-FILE-WRITE (file number 202) will be dropped with the next release of Entire System Server.

Entire System Server 3.1.1 Release Notes

These Release Notes provide an overview of all changes for Entire System Server 3.1.1.

This document covers the following topics:

- Support of Previous Versions
 - Prerequisites
 - Restrictions
 - New Features
 - Changes/Enhancements
 - Solved SAGSIS Problems
 - Cancelled Support
-

Support of Previous Versions

Note that with the release of Entire System Server 3.1.1, versions of Entire System Server lower than 2.2.2 can no longer be supported. You are therefore strongly advised to migrate to the current version at your earliest convenience.

Prerequisites

Before you can install the Entire System Server, the following Software AG products must already be installed at your site:

- Natural Version 3.1.3 or above;
- Adabas Version 6.2.1 or above;
- Entire System Server Interface (provided with Natural);
- Entire Net-Work Version 5.4.1 (optional, for multi-CPU Support);
- Predict Version 3.4.2 or above (optional).

The Entire System Server Services are available in any Natural environment that runs any or a combination of the following operating systems:

- OS/390 Version 2.6 or above;
- VSE/ESA Version 1.4.4 or above;
- BS2000/OSD Version 2 or above.

For OS/390, JES2 the PTFs for APARs OW35104, OW36019 and OW44349 must be applied.

For OS/390, JES3 the PTFs for APARs OW34753, OW36019, OW36022 and OW44298 must be applied. See also Information APAR III1784 for recommended JES3 SAPI maintenance.

Since Entire System Server on BS2000/OSD is using operating system interfaces introduced with BS2000/OSD Version 2, it cannot run on earlier operating system versions.

If Natural ISPF is used, Version 2.4.3 is required to support the new Entire System Server version.

If Natural ISPF Version 2.4.2 is used, the solutions for the following problems have to be installed:

OS/390:

Problem	Solution	Description
195165	IS24204	Error NAT1305 in ISPJLS1P / 5580 Numeric value truncated

BS2000/OSD:

Problem	Solution	Description
202180	IS24205	Browse / Find in LMS elements slow.

Restrictions

The restrictions described in this section apply only to **OS/390 JES3 installations**.

- Input JCL (JESJCLIN) and SYSIN Datasets are not selectable. (READ-SPOOL, SPOOL-FILES)
- Active SYSOUT Datasets (not yet closed and freed) are not selectable (READ-SPOOL, SPOOL-FILES). This includes the active SYSLOG (CONSOLE-LOG).
- UPDATE authority is required to access spool datasets. (READ-SPOOL, SPOOL-FILES)
- No parallel access to spool datasets from different tasks. (READ-SPOOL, SPOOL-FILES)
- Entire Output Management (NOM) does not work due to the restrictions described above.

If your applications need the missing functionality for the JES3 interface or you are using Entire Output Management (NOM), you must not install Entire System Server Version 3.1.1. Instead, you have to use Entire System Server Version 2.2.2, until the missing functionality of the JES3 interface is implemented in the next maintenance level or release of Entire System Server.

New Features

This section describes new Entire System Server Features. It covers the following topics:

- Common New Features
- New Features under OS/390
- New Features under VSE/ESA
- New Features under BS2000/OSD

Common New Features

Dynamic Server Management for Entire System Server

This feature is available under VSE/ESA and BS2000/OSD. It is not needed for OS/390.

Dynamic Server Management allows you to define a range of servers which will be started and stopped according to the workload in the Entire System Server.

For a detailed description of the Dynamic Server Management, see the subsection Dynamic Server Management for Entire System Server in Section Common Entire System Server Features in the Entire System Server Administration Documentation.

There are the following new startup parameters for Dynamic Server Management:

- SERVER-DYN;
- SERVER-MAX;
- SERVER-MIN;
- SERVER-NONACT;
- SERVER-QUEUE-DEPTH.

For more information, see Section Startup Parameters in the Entire System Server Administration Documentation.

Trace of Entire System Server

Entire System Server creates incore trace data on request for diagnostic purposes. An external trace analyzer (ESYTRACE) reads the incore data and converts it to printable format.

For a detailed description of the Trace feature, see the subsection Creating Trace Data in the Entire System Server in Section Common Entire System Server Features in the Entire System Server Administration Documentation.

There are the following new startup parameters for Trace:

- TRACE:
- TRACE-LEN;
- TRACE-SAV.

For more information, see Section Startup Parameters in the Entire System Server Administration Documentation.

Zap Reports in Entire System Server

During startup, Entire System Server reports all applied zaps and additional information about the running load modules.

For a detailed description, see the subsection ZAP Reports in Entire System Server in Section Common Entire System Server Features in the Entire System Server Administration Documentation.

Deferred Shutdown of Entire System Server

Entire System Server must stop all NATURAL-SUB-TASKS before shutting down.

This procedure is described under Deactivating SAT during Entire System Server Stop within the Running System Automation Tools in Entire System Server subsection in Section Common Entire System Server Features.

A new startup parameter has been created therefore to limit the delay:

SHUTDOWN-MAX-DELAY

For more information, see Section Startup Parameters in the Entire System Server Administration Documentation.

Additional Fields Supported in NATPROC-USERS View

The following new fields:

- FULL-SCAN;
- INTERNAL-TASK;
- TASK-ID;
- JOB-ID (on BS2000/OSD only)

have been added to provide information about internal tasks of ESY.

This enhancement completes the information about the activities inside Entire System Server. For more details, see View Description of NATPROC-USERS in the Entire System Server User's Guide.

New Features under OS/390

New and Changed Fields for WRITE-SPOOL

Fields have been added or changed to the view WRITE-SPOOL that may be used by a functional subsystem (FSS) that can perform Internet Protocol (IP) transmission (for example, IP PrintWay). See the documentation for the particular subsystem for additional information.

The DESTINATION field has been expanded to a length of 50 bytes to allow the specification of a TCP/IP address or host name in the form 'IP:ipaddr'.

The FSSDATA field has been added to allow the specification of a subsystem-defined parameter for a functional subsystem.

The PORTNO field has been added to allow the specification of the TCP/IP port number at which a FSS connects to a printer.

The PRTOPTNS field has been added to allow the specification of additional print option data for a functional subsystem.

The PRTQUEUE field has been added to allow the specification of the name of the target print queue on a remote host system.

See the view description of WRITE-SPOOL in the Entire System Server User's Guide for a detailed description of the new and changed fields.

Copying of PDSE Program Objects

Copying of program objects (PDSE load modules) is now supported by COPY-FILE on the local node. Remote copy support will be available in a future release.

New Common JES Interface

The former JES2 and JES3 interfaces have been rewritten and integrated into a Common JES Interface, exploiting the OS/390 MVS subsystem interface functions 79 (SYSOUT API) and 80 (Extended Status). However, for JES3 some restrictions apply (see chapter Restrictions above), that will be lifted with a future release.

The Common JES Interface needs not be assembled during installation and therefore is distributed only as load module. It currently supports all JES2 and JES3 releases from OS/390 V2R6 to V2R10. Support for new releases of JES2 and JES3 will be added via problem solutions.

All required security checks are done within the Common JES Interface and the SYSOUT API implementations using the SAF router interface. Therefore the former security exit JESVRACF is no longer required. However, for compatibility reasons, a dummy exit is provided that may be used to perform additional authorization functions.

With the Common JES Interface, the views ACTIVE-JOBS, SPOOL-QUEUE and SPOOL-FILES may return job queue entries and spool file entries in a different order than with the former JES2 and JES3 interfaces. Also, some error codes related to the former interfaces are no longer used, and some new error codes have been added for the new interface. Please see the corresponding view descriptions in the Entire System Server User's Guide for details on the error codes.

The startup parameter SYSLOG-REFRESH is no longer supported and will be ignored, if specified. Please remove any SYSLOG-REFRESH specifications from your startup parameters to avoid initialization errors with future releases of Entire System Server.

Security Exits Distributed as Load Modules

To simplify installation, all security exits are pre-assembled and also distributed as load modules. If no modifications to these exits are needed to satisfy special customer requirements, they no longer need to be assembled and linked during installation.

New Features under VSE/ESA

Security

User exits for support of the SAF Security Interface (available starting with VSE/ESA 2.4) may now be used. Please contact Software AG support for details.

New Features under BS2000/OSD

Addressing Mode

All tasks of Entire System Server run in AMODE 31. This is independent from settings in the job control. The startup parameter AMODE is not evaluated any more and can be omitted.

Usage of Operating System Interfaces

The views of Entire System Server use macros and SVCs recommended for BS2000/OSD Version 2. Therefore, views were redesigned to benefit from the new interfaces.

No more Data Limitations for CATALOG and VTOC Views

Due to enhancements in operating system interfaces, there is no limitation of retrieved file information any more. The amount of return data is limited only by the available storage for the ESY SERVER address space.

Using Global Access Tables in READ-FILE

READ-FILE maintains access tables for SAM files if the field DIRECT has not been set to YES. These tables contain information about the number of records per block in a file and improve direct access to certain records within a file. These tables have been moved from the user-specific context to the global context in Entire System Server to improve the READ-FILE performance if different users are working with the same file non-sequentially.

The new startup parameter NUMFAT has been added to specify the number of internal access tables. For details, see Section Startup Parameters in the Entire System Server Administration Documentation.

Create an LMS Library via FILE-ALLOCATE

The new FILE-ALLOCATE view supports the creation of LMS libraries. The field PRODUCT has been added therefore. For more details, see the description of the PRODUCT field and the sample FIND statement in View Description of FILE-ALLOCATE in the Entire System Server User's Guide. See also the description of the REPLACE field for restrictions.

Parameter Handling

The parser routine for the ESY parameter file has been redesigned to improve the robustness and fault-tolerance.

Code Optimization

The communication between the different ESY tasks has been redesigned to use the Forward Eventing interfaces of BS2000/OSD to improve the performance.

New Library Concept

The load modules are link-edited to reduce the ESY startup duration. Now there is a strict distinction between the ESY delivery library and the ESY user library to separate user exits from the ESY delivery module library.

For more information, see Library Concept in the subsection Details for Running Entire System Server on BS2000/OSD, Section Administration - BS2000/OSD Considerations.

The required assignments of LINK-NAME DDLIB (MAIN task only) and DDLIB2 (all tasks) will be tested explicitly during startup of the ESY tasks.

Console error message ESY2160 is issued to report a missing LINK-NAME.

SVC Usage Reduction

An internal stack has been implemented to reduce the number of memory requests by using the stack.

Stopping Entire System Server via Program

The module ESYSTOP has been implemented to stop the Entire System Server without using any operator commands but by only running a program. For more details, see Shutdown of Entire System Server on BS2000/OSD in Section BS2000/OSD Considerations of the Entire System Server Administration Documentation.

Additional Fields Supported in FILE-ATTRIBUTES View

Information about

- BACKUP-INFO;
- BACKUP-VERSION-NUMBER;
- MIGRATE;
- STORAGE-LEVEL

will be returned from the view FILE-ATTRIBUTES. For more details, see View Description of FILE-ATTRIBUTES in the Entire System Server User's Guide.

Additional Values for Startup Parameter MSGLEVEL

Value I (INFORMATION) can be specified instead of 1 (same meaning) to improve readability of MSGLEVEL values. For more information, see Section Startup Parameters in the Entire System Server Administration Documentation.

New Startup Parameter NUMUSER

The number of ESY users working in parallel can now be defined in the parameter file. See the parameter NUMUSER in the section Startup Parameters of the Entire System Server Administration Documentation.

New CONSOLE Program

The CONSOLE program delivered with Entire System Server 3.1.1 uses new data structures. New ESYCONS cannot serve nodes running former ESY versions. It uses different serialization items to run old and new ESYCONS in parallel on the same machine. Therefore, you are required to establish another user ID for the new UCON interface task. If no parallel operation of old and new ESY is needed, the existing user ID should be used for the UCON interface.

Changes/Enhancements

This section describes implemented changes and enhancements of Entire System Server.

It covers the following topics:

- Changes / Enhancements on OS/390
- Changes / Enhancements on VSE/ESA
- Changes / Enhancements on BS2000/OSD

Changes / Enhancements on OS/390

C/E Description

C/E	Description
3210	Return code at ESY termination. See Return Codes Issued by Entire System Server at Termination in Installation for OS/390.
5617	Support PDSE in FILE-ATTRIBUTES. See the new field PAGES-USED in View Description of FILE-ATTRIBUTES in the Entire System Server User's Guide. The field PERCENT-USED is also provided for PDSE.
5766	Large record support in READ-SPOOL (SEGMENT's). See the new field SEGMENT-LENGTH in View Description of READ-SPOOL in the Entire System Server User's Guide.
6132	Operator command "START ALL" to restart ESM monitors after shutting down. See Activating/Deactivating NATURAL-SUBTASKS (SAT) during Operation.
8724	New field TAPE-UNLOAD in WRITE-FILE view to unload tapes after CLOSE. For more details, see View Description of WRITE-FILE in the Entire System Server User's Guide.

Changes / Enhancements on VSE/ESA

C/E Description

C/E	Description
3210	Return code at ESY termination. See Return Codes Issued by Entire System Server at Termination in Installation for VSE/ESA.
6132	Operator command "START ALL" to restart ESM monitors after shutting down. See Activating/Deactivating NATURAL-SUBTASKS (SAT) during Operation.

Changes / Enhancements on BS2000/OSD

C/E Description

C/E	Description
3210	Return code at ESY termination. For detailed information, see Program Characteristics in Details for Running Entire System Server on BS2000/OSD.
3313	Support LMS Record Type. New field ELEMENT-RECORD-TYPE is available in READ-FILE and WRITE-FILE view to copy LMS object modules properly. See View Description of READ-FILE and WRITE-FILE in the Entire System Server User's Guide.
6132	Operator command "START ALL" to restart ESM monitors after shutting down. See Activating/Deactivating NATURAL-SUBTASKS (SAT) during Operation.
7751	CONSOLE WAIT in WAIT task only. A request such as "FIND CONSOLE WITH FUNCTION = 'DISPLAY' AND NODE = node AND WAIT-TIME = greater_than_0 AND READ-DIRECTION = 'F' AND RECORD-NUMBER = last_+_1" was performing a VPASS in the SERVER task and thus blocked the request processing of other users. This wait has been moved to the EVENTING wait task to avoid blocking the SERVER. If Eventing is not configured, an error "ESY5809 Subsystem not active" is returned.
7758	NATURAL-SUB-TASK job skeleton as part of ESY startup parameter file. See the subsection Start of SAT under BS2000/OSD in Section Administration - BS2000/OSD Considerations. New startup parameters have been added therefore: • SATSKEL-BEGIN and • SATSKEL-END. For more information, see Section Startup Parameters.
8724	New field TAPE-UNLOAD in WRITE-FILE view to unload tapes after CLOSE. For more details, see View Description of WRITE-FILE in the Entire System Server User's Guide.
8943	Use new CMD macro Version 4 with an increased output buffer size.
9079	Startup parm SPOOL=YES/NO for BS2000/OSD to support environments with temporarily disabled Spooling subsystem. For more information, see Section Startup Parameters.

Solved SAGSIS Problems

This section describes solved SAGSIS problems for Entire System Server.

It covers the following topics

- Solved SAGSIS Problems on OS/390
- Solved SAGSIS Problems on VSE/ESA
- Solved SAGSIS Problems on BS2000/OSD

Solved SAGSIS Problems on OS/390

Problem	Description
188324	CLOG LAYOUT=5 support for NPR.

Solved SAGSIS Problems on VSE/ESA

Problem	Description
172472	Moved dataset causes 4342D.
188324	CLOG LAYOUT=5 support for NPR.
194062	OP77I at XMCSV035 + X' 6DE'.
193365	No line feed during VTAM print.

Solved SAGSIS Problems on BS2000/OSD

Problem	Description
188324	CLOG LAYOUT=5 support for NPR.

Other Problems Solved on BS2000/OSD

A bug fix is implemented to post all other ESY tasks if the MAIN task has abended abnormally. The non-MAIN tasks will also stop immediately.

The NATURAL-SUB-TASK feature is available also if the startup parameter JOBNATSUB is omitted but startup parameter NATNUMSUB has been specified. This allows you to start NATURAL-SUB-TASK at any time.

Users will be cleaned up asynchronously to avoid a temporarily blocked MAIN task. Therefore, the ESY0007 confirmation message will not be issued until the responses of all involved SERVER tasks have been received.

Cancelled Support

Cancelled Support on BS2000/OSD

As already announced with Entire System Server 2.2.2, the support of the LMS Version 1 is cancelled with Entire System Server 3.1.1. The appropriate startup parameter LMSVERS is not needed any more and will be ignored.

XEND and ADAEND commands

In the past, the undocumented XEND command may have been used instead of the ADAEND command to terminate an Entire System Server region. This command should not be used, and it will go away in a future release.

Entire System Server 2.2.2 Release Notes



For further information, you should also read the **Entire System Server 2.2.1 Release Notes** which are delivered with Version 2.2.2 on the current Natural Documentation CD-ROM and in printed form. References contained in the Version 2.2.1 Release Notes generally refer to the corresponding Version 2.2.1 manuals which are included in the Version 2.2.2 documentation set as PDF files only. Formal differences to the current release documentation may exist, for example, Software AG product names (Natural, Adabas, etc.) are written in capital letters.

These Release Notes provide an overview of solved problems provided for Entire System Server 2.2.2.

This document covers the following topics:

- Support of Previous Versions
 - Prerequisites
 - Solved SAGSIS Problems on OS/390
 - Solved SAGSIS Problems on VSE/ESA
 - Solved SAGSIS Problems on BS2000/OSD
-

Support of Previous Versions

With the release of Entire System Server 2.2.2, versions of Entire System Server lower than 2.1.4 can no longer be supported. You are therefore strongly advised to migrate to the current version at your earliest convenience.

Note:

Since Natural 2.3.4, the installation of ESX 2.3.x under Natural Version 2.3.4 is described in the Natural 2.3.4 Release Notes. For new features and change enhancements, please refer to the Entire System Server 2.2.1 Release Notes.

Prerequisites

Before you can install the Entire System Server, the following Software AG products must already be installed at your site:

- Adabas Version 6.2 or above;

If you are using Entire System Server Version 222, Adabas Version 711 and Natural Version 312, please apply zap AO711027 in the Adabas load library.

- Natural Version 2.3.4 or above;

There are the following additional prerequisites for SYSPROD running with Entire System Server:

- For NAT234: the fixes NA23425 and NA23439
- For NAT312: the fix NA31206

Apply the fixes as described below:

Step	Procedure
1	Change the text from NPR to ESY in the member NATCONFIG in NAT234.SRCE or NAT312.SRCE.
2	Arrange ESY in alphabetical order.
3	In both cases, the Natural module NATCONFIG has to be reassembled and linked.
4	Load NPR222.INPL.
5	As described in the Natural Installation Manual Step 6, the Natural Nucleus has to be relinked.

- Entire System Server Interface (provided with Natural 2.3.4);
- Entire Net-Work Version 5.4.1 (optional, for multi-CPU support).
- Predict Version 3.2 or above (optional).

The Entire System Server services are available in any Natural environment that runs any or a combination of the following operating systems:

- OS/390 Version 2.4 or above,
- VSE/ESA Version 1.4.4 or above,
- BS2000/OSD Version 2 or above.

Solved SAGSIS Problems on OS/390

Problem	Description
181725	ESY5710 Allocation failed.
182929	Abend on operator command.
183397	Delete PS / alloc PS failed.
184051	COPY book missing on tape.
184149	ESY5710 ALLOC FAILED INVALID UNIT.
184158	Abend S0C2 in XCOMV007 at +2F4.
184189	View CATALOG and XCOMV008.
184285	ESY5508 Adabas Rsp 52.
184287	NAT7545 / ESY5510.
185000	Error ESY5782 message not correct.
185035	Invalid ESD-ADDRESS - load-module.
185046	OS/390 2.7 and 2.8 XCOMJES2.
185050	Change defaults NATWSPL2 NATWSP23.
185368	Abend S0C2 in XCOMDEV4 at +1BA.
185375	Abend S0C2 in XCOMV009 at +39E.
185577	Messages ESY0001I from NATWSPL2.
185583	ESY5631 Console table not found.
185636	ESY5710 Allocation failed message.
185881	Abend S0C4 Abend in XCOMV032.
186023	READ-SPOOL TYPE AL only 1 line.
187558	Abend S0C4 in XCOMJES2+X†290AŸ
187905	NPR cannot be stopped.
187952	Expiration-date with YYYY/DDD.
188791	Abend S0C4 in XCOMV008+X†0468Ÿ.
189021	Write-to-Spool for Natural 2.3.
189758	LOG-DATX in CONSOLE-LOG.

Further Solved SAGSIS Problems on OS/390:

Problem	Description
190490	Sometimes Monitor does not start.
190502	NCL terminates with S13E.
190511	S0C4 abend in ESYNMAIN.
190628	ESY5785 w/ MVTOC pgm in SYSNPE.
190650	JES2 Job Numbers > 32767.
190992	datx fields are blank.
191168	SYSPROD USR0050P.
191343	LIB-DIRECTORY - undefined results.
191393	IEC342I CATALOG ABEND.
191517	Several abends A0A-10 JES3.
191562	S0C4 CSECT ACF9CXT SYSTEM-COMMAND.
191643	ABEND S0C4 during startup.
191759	Missing error text.
192060	READ-FILE SCAN-LIMIT not precise.
192534	Abend S047 after SYSTEM-COMMAND.
192576	Start/end date blank.
192677	Assembly NATPAML error ASM044E.
192796	ESY3429 in SYSNPE FILE-ALLOCATE.

Solved SAGSIS Problems on VSE/ESA

Problem	Description
180030	SAT subtask with NAT228.
186436	SUBTASK NOMXTS00 CANCELED.
186783	ESY5508 Adabas Rsp 52.
186784	NAT7545 / ESY5510.
186785	Batch task abends with dump.
188156	NPR dumps after ADAEND.
188158	NPR dumps subtask during ADAEND.
188162	Error in Date Arithmetic 29.2.2000
189422	Storage not freed by NOM subtasks.
189935	Sporadically ESY5631.
189985	LOG-DATX IN CONSOLE-LOG
192138	Member VTAMNATP.B is missing.
192321	SYSTEM-INFO returns wrong date.

Solved SAGSIS Problems on BS2000/OSD

- Other Problems Solved on BS2000/OSD
 - Description
 - Cancelled Support

Problem	Description
178216	NAT23x, dyn. parms for subtask.
182482	Performance problem SPOOL V.4
183474	ESY5889 (DMS0D80) at SATSTART View processor NATURAL-SUBTASK cannot open temporary file on NK4 pubsets. Similar problems in view processors SUBMIT and WRITE-SPOOL solved.
183593	MAIN Task Dump after WTO NPR0064 in SERVER.
183678	NATPROC-LOGON gets Adabas response code 52.
183717	ESY0400E ENASI RC 0x10000004 if ESYCONS is executed with PROG- MOD=ANY
183807	SYSTEM-INFO gets response code 5510.
185893	Generated /EOF card in view processor NATURAL-SUBTASK.
185911	ESY0300E (IW48 in XCOMV035) after ADAEND.
185918	Entire System Server does not start with Adabas V.7.
188555	Performance problem SPOOL V4.

Other Problems Solved on BS2000/OSD

Description

- Upper limit of Natural subtasks increased from 20 to 100.
- Execute NPRINIT in MAIN task with PROG-MOD=ANY.
- Deferred ESY ADAEND processing to properly execute shutdown of internal products.
- Support different configurations of Natural batch driver to read dynamic parameters for Natural subtasking. The new startup parameter NATDYNPAR has been introduced to specify the input unit of dynamic parameters and a revised edition of the Natural subtask job skeletons is provided.
- Since Entire System Server supports BS2000/OSD V.2 and above, a console message will be issued if an earlier operating system version has been detected. Please note that the next release of ESY will require BS2000/OSD Version 2 and cannot run with older operating system versions.

The following message appears as warning:

XCO0091W BS2000/OSD V.2 or above is recommended.

Cancelled Support

Support of LMS Version 1 will be canceled with the next version of Entire System Server.

Entire System Server 2.2.1 Release Notes



The Release Notes of the **Entire System Server Version 2.2.1** are provided for background information only!
References contained in the Version 2.2.1 Release Notes generally refer to the corresponding Version 2.2.1 manuals which are not included in the Version 2.2.2 documentation set.

These Release Notes provide an overview of the changes and enhancements offered by Entire System Server Version 2.2.1.

Together with this release, Entire System Server Interface (ESX) Version 2.3.1 is provided for all operating systems, which you must also install. For Natural Versions 2.3.4 and above (except Version 3.1.1) the ESX modules are part of the Natural nucleus and do not have to be linked to it any longer. For Natural Version 3.1.1 see the section Installation Guidelines for ESX 2.3.1 under Natural 3.1.1 or below Version 2.3.4.

This document covers the following topics:

- Support of Previous Versions
 - Prerequisites
 - New Features
 - OS/390 Operating System
 - BS2000/OSD Operating System
 - Installation Guidelines for ESX 2.3.1
 - Changes / Enhancements
 - Solved SAGSIS Problems
-

Support of Previous Versions

Note that with the release of Entire System Server 2.2.1, versions of Entire System Server lower than 2.1.4 can no longer be supported. You are therefore strongly advised to migrate to the current version at your earliest convenience.

Prerequisites

Before you can install the Entire System Server, the following Software AG products must already be installed at your site:

- Natural Version 2.2.8 or above
- Adabas Version 6.2 or above
- Entire System Server Interface 2.3.1 (provided with the Entire System Server and installed as part of the installation described below)
- Entire Net-Work Version 5.4.1 (optional, for multi-CPU support)
- Predict Version 3.2 or above (optional)

The Entire System Server services are available in any Natural environment that runs any or a combination of the following operating systems:

- OS/390 Version 2.4 or above,
- VSE/ESA Version 1.4.4 or above,
- BS2000/OSD Version 2 or above.

New Features

With Entire System Server 2.2.1, new fields were added to the following views:

- FILE-ATTRIBUTES
- LIB-DIRECTORY
- SYSTEM-INFO
- NATPROC-LOGON
- WRITE-SPOOL
- WRITE-FILE

FILE-ATTRIBUTES

- SERIES-ARRAY
- VOLSER-ARRAY
- BLOCK-CONTROL
- FILE-SEQUENCE-NUMBER

LIB-DIRECTORY

- DATX-CREATED
- DATX-CHANGED

SYSTEM-INFO

- SPOOL-RELEASE
- SPOOL-TYPE
- NODE-NAME-LIST
- RSO-VERSION

NATPROC-LOGON

- ACCOUNTING

WRITE-SPOOL

- HOLD

WRITE-FILE

- EXPIRATION-DATE
- EXPIRATION-DATX

OS/390 Operating System

Installation Guidelines for ESX 2.3.x under Natural Version 2.3.x

The write-spool-feature discussed in the Entire System Server 2.1.1 installation and customization manual for Natural Version 2.3.x (OS/390) is now available.

The new module NATWSP23 has to be linked with the NAT23 nucleus. The definition in the Natural parameter should be as follows:

NTPRINT (print-file-numbers), AM=NAF, NAFSIZE=1

BS2000/OSD Operating System

- ZAP XC22101 for Natural 2.3 and above
- Library Management System

ZAP XC22101 for Natural 2.3 and above

As of OSD Version 3.x, the RDCARD macro (SYSIPT) has been dropped by Siemens.

For proper subtasking under Entire System Management products (Entire Output Management and Entire Operations), parameters are passed dynamically up to a length of 250 characters.

This zap extends the maximum characters passing from 72 to 255 to satisfy the Entire Operations needs at startup time of the Natural subtasks.

This zap must be applied if:

- Natural Version 2.3 and OSD Version 3.x are used as basis for Entire Output Management or Entire Operations

It must **not** be applied if:

- Natural below Version 2.3 is used
- DYNPAR is not equal to SYSDATA in your NAMBS2 macro definition.

If the zap is applied and subtasking is active, then please use JCL frames P.NSBTSKIS.OSD3 or P.NSBTSKSD.OSD3 to assemble the subtask job as an example. These frames omit the SYSIPT definitions.

Library Management System

With Entire System Server 2.2.1, the BS2000/OSD Library Management System (LMS) Version 1 is fully functional. Please note that it will no longer be supported with the next version of Entire System Server.

Installation Guidelines for ESX 2.3.1

ESX Version 2.3.1 supports Natural 2.2.x and Natural 2.3.x. For details see the Entire System Server Installation Manual, Step Relink Natural.

From Natural Version 2.3.4, on, the ESX modules will be distributed together with Natural.

The following section is an example for OS/390:

Relink Natural

If you are using Natural Version 2.3.4 or Natural Versions 3.1.2 and above, do not perform this step.

Under Natural 2.3, it would be possible to link all the required individual modules into the Natural nucleus, but it is better to link two composite modules (NATGWIDB and NATGWPRC - these names are fixed because of Natural requirements) which then can be integrated into Natural in any one of the four supported ways:

- linked with the shared nucleus,
- linked with dependent nucleus,
- linked with alternate parm module,
- loaded dynamically via RCA.

The linkage editor control cards for Entire System Server are:

```
MODE AMODE (31)
MODE RMODE (ANY)
INCLUDE ESXLIB(ESXGWPRC)
INCLUDE ESXLIB(ESXPNI SY)
INCLUDE ESXLIB(ESXPRCSY)
INCLUDE SMALIB(ESXPNI P)
INCLUDE SMALIB(ESYNODTB) (not mandatory)
INCLUDE ESXLIB(ESXGWIDB) (for Natural ISPF only)
INCLUDE ESXLIB(ESXROUT) (for Natural ISPF only)
INCLUDE SMALIB(ESXREDS) (for Natural ISPF only)
INCLUDE SMALIB(ESXPNIID)
INCLUDE SMALIB(ESXPRCID)
```

For Natural Version 2.2, the modules must be linked with the Natural nucleus (if the nucleus is split, they may be contained in the shared part) for Entire System Server:

```
INCLUDE ESXLIB(ESXGWPRC)
INCLUDE ESXLIB(CMPROCX)
INCLUDE ESXLIB(NATPNI)
INCLUDE SMALIB(ESXPNI P)
INCLUDE SMALIB(ESYNODTB) (not mandatory)
INCLUDE ESXLIB(ESXGWIDB) (for Natural ISPF only)
INCLUDE ESXLIB(ESXROUT) (for Natural ISPF only)
INCLUDE SMALIB(ESXREDS) (for Natural ISPF only)
```

Changes / Enhancements

C/E	Description
7759	Allow shutdown of subproducts. Allow shutdown of a running Entire System Server including shutdown of its subproducts, e.g. Entire Operations, Entire Output Management and Entire System Server (on all operating systems). An internal command SHUTDOWN is sent to all related subproducts.
7752	Use cross-memory communication Get rid of IBM JES2 parameter APPLCOPY=common. Use cross-memory communication instead (OS/390 only).
7781	Date format System-Info displays if European or American date format is used (VSE only).
6580	Increase maximum number of extents VTOC maximum number of extents is now 123 (OS/390 only).
6224	Refresh Standard Label Area Refresh standard label area using an operator command or a nat-pgm (VSE only).
4960	Cyrillic characters Console view allows cyrillic characters (OS/360 and VSE only).
3255	Show flags of modules View LIB-DIRECTORY in VSE shows attributes e.g. AMODE, RMODE, MSHP.
2890	Show alias View LIB-DIRECTORY for load modules shows if a member name is somebody elses alias (OS/390 only).
2709	HSM. Delete HSM migrated datasets without recalling them (OS/390 only). CATALOG view The OS/390 CATALOG view has been redesigned. It now uses the catalog OS/390 search interface and allows faster access. BS2000/OSD non-ISAM files Access to BS2000/OSD non-ISAM files has been redesigned. If a record is read randomly, access is much faster now.
7723	New parameter for sysplex console Two new parameters (OS/390 and VSE only) were introduced: SYSTEMCONS=DAEF,DA2F: shows both the console of DAEF and of DA2F;CONSNAME=WOLFGANG: assign a console named Wolfgang.
	New commands for OS/390 and VSE environments REFRESH JES (OS/390 and VSE): refreshes the internal table related to spool processing REFRESH LABELS (VSE only): refreshes the internal table. This is allowed only if FILETABLE=DYNAMIC was specified in the startup parameters.

Solved SAGSIS Problems

Problem	Description
138749	Print to VTAM very slow
146578	Cannot find numeric datasets 148001 Process libraries only
148142	Date wrong in Natural subtask
148333	VSAM (SHOWCAT) processing error
148363	Library members have zero records
153757	Submit with password-encryption
155510	ESY5871 copying from OS/390 to VSE
159106	Catalog view - last line copied
160352	Access VSE library
162629	READ-FILE LMS-element handling of record types
165235	PROCESS SUBMIT USERID= 'TSOS'
166180	List-File Panel with SHARE=NO
166268	ESY abends 0C4 at XDBPROC+196C
168246	record length in power listings
169526	ESY5993 at create BS2000/OSD files
170473	FILE-ALLOCATE error RC 035C0022
172472	Moved dataset causes 4342D
175167	ESY5777 browse console log
175704	Nat Abend on READ-FILE EOF
175728	Entire System Server Natural Subtasking under BS2000/OSD3
175858	ESY5530 with fsharing=1
175941	NAT23x, dyn. parameters for subtask
176756	Manual NPR211-020ALL, page 341
176879	Write-to-Spool for Natural 2.3
177913	Node Table not efficient
178160	ESY0963 DMS 0D96 on tape